

IN THE CLAIMS:

Please amend Claims 1-6 and 11-16 as indicated below. The following is a complete listing of claims and replaces all prior versions and listings of claims in the present application:

1. (currently amended): A form processing apparatus for reading a field data source ~~storing~~ including data to be overlaid onto fields defined in a form and overlaying the data ~~[[of]]~~ extracted from the field data source onto the fields in a form; the form processing apparatus comprising:

setting means for setting a character string for each of the fields as field attribute information indicating a format of data to be overlaid, ~~the character string being composed of characters indicating a format of data to be overlaid wherein the number of characters included in the character string defines the number of characters in data to be overlaid and each character included in the character string defines a kind of each character in data to be overlaid;~~ and

overlaying means for extracting data ~~[[of]]~~ from the field data source based on the character string and overlaying the extracted data onto the field.

2. (currently amended): A form processing apparatus for reading a field data source ~~storing~~ including data to be overlaid onto fields defined in a form and overlaying the data ~~[[of]]~~ extracted from the field data source onto the fields in a form; the form processing apparatus comprising:

reading means for reading a character string set for each of the fields as field attribute information indicating a format of data to be overlaid, the character string being composed of characters indicating a format of data to be overlaid; wherein the number of characters included in the character string defines the number of characters in data to be overlaid and each character included in the character string defines a kind of each character in data to be overlaid; and

overlaying means for extracting data [[of]] from the field data source based on the character string and overlaying the extracted data onto the field.

3. (currently amended): A form processing method for reading a field data source storing including data to be overlaid onto fields defined in a form and overlaying the data [[of]] extracted from the field data source onto the fields in a form; the form processing method comprising the steps of:

setting a character string for each of the fields as field attribute information indicating a format of data to be overlaid, the character string being composed of characters indicating a format of data to be overlaid wherein the number of characters included in the character string defines the number of characters in data to be overlaid and each character included in the character string defines a kind of each character in data to be overlaid; and

overlaying the data of the field data source onto the fields by extracting the data based on the character string.

4. (currently amended): A form processing method for reading a field data source storing including data to be overlaid onto fields defined in a form and overlaying the data

[[of]] extracted from the field data source onto the fields in a form; the form processing method comprising the steps of:

reading a character string set for each of the fields as field attribute information,
indicating a format of data to be overlaid, the character string being composed of characters
indicating a format of data to be overlaid, wherein the number of characters included in the
character string defines the number of characters in data to be overlaid and each character
included in the character string defines a kind of each character in data to be overlaid; and

overlaying the data of the field data source onto the fields by extracting the data based on the character string.

5. (currently amended): A program for causing a computer to execute form processing for reading a field data source ~~storing~~ including data to be overlaid onto fields defined in a form and overlaying the data [[of]] extracted from the field data source onto the fields in a form; the program comprising the steps of:

setting a character string for each of the fields as field attribute information indicating a
format of data to be overlaid, the character string being composed of characters indicating a
format of data to be overlaid wherein the number of characters included in the character string
defines the number of characters in data to be overlaid and each character included in the
character string defines a kind of each character in data to be overlaid; and

overlaying the data of the field data source onto the fields by extracting the data based on the character string.

6. (currently amended): A program for causing a computer to execute form processing for reading a field data source ~~storing~~ including data to be overlaid onto fields defined in a form and overlaying the data ~~[[of]]~~ extracted from the field data source onto the fields in a form; the program comprising the steps of:

reading a character string set for each of the fields as field attribute information indicating a format of data to be overlaid, ~~the character string being composed of characters indicating a format of data to be overlaid~~, wherein the number of characters included in the character string defines the number of characters in data to be overlaid and each character included in the character string defines a kind of each character in data to be overlaid; and

overlaying the data of the field data source onto the fields by extracting the data based on the character string.

7. (original) The program according to claim 5; wherein the character string is composed of type specification characters, skip characters, fixed characters or a combination thereof; the type specification characters indicating how corresponding data in the data of the field data source to be overlaid onto a field should be interpreted; the skip characters indicating that any corresponding data in the data of the field data source to be overlaid onto a field should be skipped; and the fixed characters indicating that corresponding particular data in the data of the field data source to be overlaid onto a field should be skipped.

8. (original) The program according to claim 5; wherein the overlaying step comprises the steps of:

cutting a character string to be sequentially processed from the character string as a picture word;

cutting data of the field data source corresponding to the cut picture word as a field data word; and

determining whether or not the picture word is composed of type specification characters and generating a data table having a pair of the picture word and the field data word when the picture word is determined to be composed of type specification characters; and

wherein the overlaying step overlays the data of the field data source onto the fields based on the data table.

9. (original) The program according to claim 8; wherein the field attribute information includes data types indicating kinds of data of the field data source to be overlaid; and

wherein the overlaying step determines whether or not the number of the cut picture words is correct based on the data type, and, if the picture words lack in number, adds the missing picture words and field data words corresponding to the missing picture words, and then complements the added field data words.

10. (original) The program according to claim 9; wherein the overlaying step determines whether or not the data of the field data source is valid based on the data type, and overlays the data onto the field if the data is valid.

11. (currently amended): A form processing apparatus for reading a field data source ~~storing~~ including data to be overlaid onto fields defined in a form and overlaying the data ~~[[of]]~~ extracted from the field data source onto the fields in a form; the form processing apparatus comprising:

reading means for reading a character string included in field attribute information set for each of the fields, ~~the character string being composed of characters indicating the format of data to be overlaid~~ which indicates a format of data to be overlaid, wherein the number of characters included in the character string defines the number of characters in data to be overlaid and each character included in the character string defines a kind of each character in data to be overlaid;

recognizing means for recognizing, ~~when overlaying the data onto the field, the a~~ repetition number of the character string, ~~[[of]]~~ and repeatedly spreading overlaying spreading predetermined data ~~from~~ character data of the read character string based on the recognized repetition number; and

overlaying means for ~~repeatedly overlaying the predetermined data onto the field based on the recognized repetition number~~ extracting data from the field data source based on the spread character string, and overlaying the extracted data onto the field.

12. (currently amended): A form processing apparatus for reading a field data source ~~storing~~ including data to be overlaid onto fields defined in a form and overlaying the data ~~[[of]]~~ extracted from the field data source onto the fields in a form; the form processing apparatus comprising:

reading means for reading a character string included in field attribute information set for each of the fields, ~~the character string being composed of characters indicating the format of data to be overlaid~~ which indicates a format of data to be overlaid, wherein the number of characters included in the character string defines the number of characters in data to be overlaid and each character included in the character string defines a kind of each character in data to be overlaid;

recognizing means for recognizing a character indicating that the data length of the data to be overlaid is variable, from the character string;

calculating means for calculating a repetition number based on difference between the data length derived from the character string and data length of data of the field data source to be overlaid onto the field, ~~that is corresponding to the character string~~ and repeatedly spreading a predetermined character of the read character string based on the calculated repetition number; and

overlaying means for ~~overlaying the data of the field data source onto the field based on data length of the variable-data-length data recognized by the recognizing means by determining the data length based on the difference calculated by the calculating means~~ extracting data from the field data source based on the spread character string, and overlaying the extracted data onto the field.

13. (currently amended): A form processing method for reading a field data source ~~storing~~ including data to be overlaid onto fields defined in a form and overlaying the data ~~[[of]]~~ extracted from the field data source onto the fields in a form; the form processing method comprising the steps of:

reading a character string included in field attribute information set for each of the fields,
~~the character string being composed of characters indicating the format of data to be overlaid~~
which indicates a format of data to be overlaid, wherein the number of characters included in the
character string defines the number of characters in data to be overlaid and each character
included in the character string defines a kind of each character in data to be overlaid;

~~recognizing, when overlaying the data onto the field, the a repetition number of~~
~~repeatedly overlaying the character string, and recognizing a repeating predetermined data, from~~
character of the read character string based on the recognized repetition number; and

repeatedly overlaying the predetermined data onto the field based on the recognized
repetition number extracting data from the field data source based on the spread character string,
and overlaying the extracted data onto the field.

14. (currently amended): A form processing method for reading a field data
source ~~storing~~ including data to be overlaid onto fields defined in a form and overlaying the data
[[of]] extracted from the field data source onto the fields in a form; the form processing method
comprising the steps of:

reading a character string included in field attribute information set for each of the fields,
~~the character string being composed of characters indicating the format of data to be overlaid~~
which indicates a format of data to be overlaid, wherein the number of characters included in the
character string defines the number of characters in data to be overlaid and each character
included in the character string defines a kind of each character in data to be overlaid;

recognizing a character indicating that the data length of the data to be overlaid is variable, from the character string;

calculating a repetition number based on difference between the data length derived from the character string and data length of data of the field data source to be overlaid onto the field, ~~that is corresponding to the character string~~ and repeatedly spreading a predetermined character of the read character string based on the calculated repetition number; and

~~overlaying the data of the field data source onto the field based on data length of the variable-data-length data recognized by the recognizing step by determining the data length based on the difference calculated by the calculating step~~ data from the field data source based on the spread character string, and overlaying the extracted data onto the field.

15. (currently amended): A program for causing a computer to execute form processing for reading a field data source ~~storing~~ including data to be overlaid onto fields defined in a form and overlaying the data ~~[[of]]~~ extracted from the field data source onto the fields in a form; the program comprising the steps of:

reading a character string included in field attribute information set for each of the fields, ~~the character string being composed of characters indicating the format of data to be overlaid~~ which indicates a format of data to be overlaid, wherein the number of characters included in the character string defines the number of characters in data to be overlaid and each character included in the character string defines a kind of each character in data to be overlaid;

~~recognizing, when overlaying the data onto the field, the a repetition number of~~
~~repeatedly overlaying the character string, and recognizing a repeating predetermined data, from~~
~~character of the read character string based on the recognized repetition number; and~~

~~repeatedly overlaying the predetermined data onto the field based on the recognized~~
~~repetition number extracting data from the field data source based on the spread character string,~~
~~and overlaying the extracted data onto the field.~~

16. (currently amended): A program for causing a computer to execute form processing for reading a field data source ~~storing~~ including data to be overlaid onto fields defined in a form and overlaying the data ~~[[of]]~~ extracted from the field data source onto the fields in a form; the program comprising the steps of:

reading a character string included in field attribute information set for each of the fields,
~~the character string being composed of characters indicating the format of data to be overlaid~~
which indicates a format of data to be overlaid, wherein the number of characters included in the
character string defines the number of characters in data to be overlaid and each character
included in the character string defines a kind of each character in data to be overlaid;

recognizing a character indicating that the data length of the data to be overlaid is variable, from the character string;

calculating a repetition number based on difference between the data length derived from the character string and data length of data of the field data source to be overlaid onto the field,
~~that is corresponding to the character string and repeatedly spreading a predetermined character~~
of the read character string based on the calculated repetition number; and

~~overlaying the data of the field data source onto the field based on data length of the variable-data-length data recognized by the recognizing step by determining the data length based on the difference calculated by the calculating step~~ data from the field data source based on the spread character string, and overlaying the extracted data onto the field.

17. (original) The program according to claim 15; wherein the character string is composed of type specification characters, skip characters, fixed characters, repetition characters or a combination thereof; the type specification characters indicating how corresponding data in the data of the field data source to be overlaid onto a field should be interpreted; the skip characters indicating that any corresponding data in the data of the field data source to be overlaid onto a field should be skipped; the fixed characters indicating that corresponding particular data in the data of the field data source to be overlaid onto a field should be skipped; and the repetition characters indicating that corresponding data in the data of the field data source to be overlaid onto a field should be overlaid repeatedly.

18. (original) The program according to claim 17; wherein the repetition character means that a should be α times when expressed as $\alpha(n)$.

19. (original) The program according to claim 17; wherein the repetition character means that data length of data corresponding to the repetition character is variable when expressed as $\alpha(0)$.

20. (original) The program according to claim 15; wherein the overlaying step comprises:

cutting a character string to be sequentially processed from the character string as a picture word;

cutting data of the field data source corresponding to the cut picture word as a field data word; and

determining whether or not the picture word is composed of type specification characters, and generating a data table having a pair of the picture word and the field data word when the picture word is determined to be composed of type specification characters; and

wherein the overlaying step overlays the data of the field data source onto the fields based on the data table.

21. (original) The program according to claim 20; wherein the field attribute information includes data types indicating kinds of data of the field data source to be overlaid; and

wherein the overlaying step determines whether or not the number of the cut picture words is correct based on the data type, and, if the picture words lack in number, adds the missing picture words and field data words corresponding to the missing picture words, and then complements the added field data words.

22. (original) The program according to claim 21, wherein the overlaying step determines whether or not the data of the field data source is valid based on the data type, and overlays the data onto the field if the data is valid.